CLAIMS

- 1. A method of determining acceleration of a motor vehicle, comprising obtaining a high pass filtered acceleration signal and a low pass filtered acceleration signal, one of the filtered acceleration signals being obtained based upon net driving force applied to the vehicle and the other being obtained by measurement, and adding the two filtered acceleration signals to obtain an output signal representing vehicle acceleration.
- 2. A method as claimed in claim 1 wherein obtaining the low pass filtered acceleration signal comprises measuring vehicle speed and differentiating with respect to time.
- 3. A method as claimed in claim 1 or claim 2 wherein the high pass filtered acceleration signal is obtained based upon the net driving force applied to the vehicle and the low pass filtered acceleration signal is obtained by measurement.
- 4. A method as claimed in claim 3 wherein net driving force is obtained by subtracting vehicle braking force from driving force applied through driven vehicle wheels.
- 5. A method as claimed in claim 3 or claim 4 wherein net driving force is supplied to an adaptive vehicle model to obtain an estimate of vehicle acceleration.
- 6. A method as claimed in claim 5 wherein net driving force is high pass filtered before being supplied to the adaptive model.
- 7. A method as claimed in any preceding claim wherein high pass filtering is carried out by low pass filtering and adding the low pass filtered and unfiltered signals together.
- 8. A device for determining acceleration of a motor vehicle, comprising means for obtaining a high pass filtered acceleration signal, means for obtaining a low pass filtered signal, one of the filtered acceleration signals being obtained on the basis of net driving force applied to the vehicle and the other being obtained by measurement, and adding the two filtered acceleration signals to obtain an output signal representing vehicle acceleration.
- 9. A device as claimed in claim 8 which comprises a microprocessor handling

WO 2005/015244 PCT/GB2004/002348

7

the signals in digital form.

10. A device as claimed in claim 8 or claim 9 which obtains the high pass filtered signal based upon the net driving force applied to the vehicle and the low pass filtered signal by measurement.